

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended). A method of determining a frequency response of a communication system, comprising:

tuning to a selected digital channel frequency;

obtaining an absolute signal strength measurement for said selected digital channel frequency;

obtaining relative frequency response measurements for said ~~particular~~ selected digital channel frequency; and

combining said relative frequency response measurements and said absolute signal strength measurement to obtain an absolute level frequency response for said selected digital channel frequency.

Claim 2 (original). The method according to claim 1, wherein said relative frequency response measurements are obtained by:

obtaining relative time domain measurement values from the selected digital channel frequency; and

performing a fast Fourier transformation of said relative time domain measurement values.

Claim 3 (original). The method according to claim 1, further comprising displaying said absolute level frequency response.

Claim 4 (original). The method according to claim 1, further comprising storing said absolute level frequency response.

Claim 5 (currently amended) The method according to claim 2, further comprising determining whether said selected digital channel frequency corresponds to ~~is a~~ last channel specified by a channel plan.

Claim 6 (original). The method according to claim 1, further comprising:

automatically tuning to a frequency of a subsequent digital channel;

obtaining a subsequent absolute signal strength measurement for said subsequent digital channel frequency;

obtaining subsequent relative frequency response measurements for said subsequent digital channel frequency; and

combining said subsequent relative frequency response measurements with said subsequent absolute signal strength measurement to obtain a subsequent absolute level frequency response.

Claim 7 (original). The method according to claim 6, wherein a frequency band exists between a maximum frequency of said absolute level frequency response and a minimum

frequency of said subsequent absolute level frequency response, further comprising extrapolating between a maximum frequency absolute level response of said absolute level frequency response and a minimum frequency absolute level response of said subsequent absolute level frequency response.

Claim 8 (currently amended). The method according to claim 5, wherein said channel plan includes a list of digital channels to be sequentially tuned, each digital channel having a corresponding digital channel frequency, and wherein if said ~~particular~~-selected digital channel frequency corresponds to ~~is~~-said last channel then the method further comprises extrapolating between a maximum value of an absolute level frequency response for one channel of said list of digital ~~listed~~-channels and a minimum value of an absolute level frequency response for a next adjacent channel of said list of digital ~~listed~~-channels.

Claim 9 (currently amended). The method according to claim 8, further comprising displaying a result of said extrapolation for a combination of absolute level frequency responses of said adjacent channels.

Claim 10 (original). The method according to claim 8, further comprising storing a result of said extrapolation for a combination of absolute level responses of said adjacent channels.

Claim 11 (currently amended). A method of determining a frequency response of a communication system, comprising:

tuning to a frequency of a selected digital channel~~frequency~~;

obtaining first relative frequency response measurements for said selected digital channel for a first location;

obtaining second relative frequency response measurements for said selected digital channel for a second location;

obtaining an absolute signal strength at said first location and said second location;

combining said first relative frequency response measurements and said first location absolute signal strength to obtain a first absolute level frequency response value;

combining said second relative frequency response measurements and said second location absolute signal strength to obtain a second absolute level frequency response value;
and

comparing said first absolute level frequency response value from said second absolute level frequency response value to obtain said frequency response of the communication system.

Claim 12 (original). The method according to claim 11, wherein said first relative frequency response measurements are obtained by:

obtaining time domain measurement values from said selected digital channel frequency; and

performing a fast Fourier transformation of said time domain measurement values.

Claim 13 (original). The method according to claim 11, further comprising displaying said frequency response of the communication system.

Claim 14 (original). The method according to claim 11, further comprising storing said frequency response of the communication system.

Claim 15 (currently amended). The method according to claim 11, further comprising determining whether said ~~particular~~ selected digital channel is a last channel specified by a channel plan.

Claim 16 (currently amended). The method according to claim 11, further comprising tuning to a frequency of a subsequent digital channel ~~frequency~~ and obtaining a subsequent frequency response of the communication system.

Claim 17 (currently amended). The method according to claim ~~16~~15, further comprising extrapolating between a maximum frequency absolute level response of the frequency response and a minimum frequency absolute level response of said subsequent frequency response.

Claim 18 (currently amended). The method according to claim ~~17~~16, further comprising displaying a result of said extrapolation ~~for a combination of absolute level responses of said adjacent channels.~~

Claim 19 (currently amended). The method according to claim ~~17~~¹⁶, further comprising storing a result of said extrapolation ~~for a combination of absolute level responses of said adjacent channels.~~

Claim 20 (currently amended). The method according to claim 16, further comprising repeating the method by retuning to the frequency of said selected digital channel ~~frequency~~, wherein said selected digital channel is a first channel on a ~~said~~ list of channels.

Claim 21 (currently amended). An apparatus for sweep testing a communication system, comprising:

a tuner;

digital demodulation and decoding circuitry configured to receive ~~that receives a~~ signal at a selected channel frequency from said tuner and configured to output ~~that outputs~~ adaptive equalizer weights; and

a controller having a channel list, said controller operative to select in sequence, via said tuner, every channel listed for a desired frequency band, to measure and record absolute power for each respective selected channel, to acquire lock for a predetermined time on each respective selected channel, to measure and record a relative frequency response of each respective selected channel based on said adaptive equalizer weights during each corresponding channel lock time, and to combine the absolute power measurement with the corresponding relative frequency response measurement for each selected channel to ~~then~~ output a system frequency response based on said combined measurements.

Claim 22 (currently amended). The apparatus as claimed in claim ~~21~~20, wherein said controller performs a fast Fourier transformation on said adaptive equalizer weights in order to determine said relative frequency response measurement of each respective selected channel.

Claim 23 (currently amended). The apparatus as claimed in claim 21, further comprising a storage device for storing said absolute power and relative frequency response measurements.

Claim 24 (currently amended). The apparatus as claimed in claim 21, further comprising a display device operative to display at least one of said absolute power measurement, said relative frequency response measurement, and said system frequency response.

Claim 25 (original). The apparatus as claimed in claim 21, wherein said digital demodulation and decoding circuitry includes an adaptive equalizer and an I/Q decoder.

Claim 26 (currently amended). An apparatus for determining a frequency response of a communication system, comprising:

a tuner operative to tune to a selected digital channel frequency band; and

a measurement circuit, said measurement circuit operative to:

obtain an absolute signal strength measurement ~~measurements~~ for said selected digital channel frequency band;

obtain relative frequency response measurements for said selected digital channel frequency band; and

combine said relative frequency response measurements and said absolute signal strength measurements to obtain an absolute level frequency response for said selected digital channel frequency band.

Claim 27 (currently amended). The apparatus as claimed in claim 2625, wherein said measurement circuit includes a processor.

Claim 28 (original). The apparatus as claimed in claim 26, wherein said measurement circuit further includes a QAM demodulator and an I/Q decoder.

Claim 29 (currently amended). The apparatus as claimed in claim 2625, further comprising a display for displaying the absolute level frequency response.

Claim 30 (currently amended). The ~~system~~apparatus as claimed in claim 2625, wherein said tuner is further operative to automatically tune to a subsequent digital channel frequency band, and wherein said measurement circuit is further operative to obtain a subsequent level frequency response for said subsequent digital channel frequency band.